



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-1171; Project Identifier AD-2022-00852-T; Amendment 39-22417; AD 2023-08-02]**

**RIN 2120-AA64**

#### **Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding Airworthiness Directive (AD) 2018-05-06 and AD 2021-08-19, which both applied to certain The Boeing Company Model 787-8, -9, and -10 airplanes. AD 2018-05-06 required repetitive inspections of the bilge barriers located in the forward and aft cargo compartments for disengaged decompression panels, and reinstalling any disengaged panels; and required replacing the existing decompression panels with new panels and straps, which terminated the repetitive inspections. AD 2021-08-19 required repetitive general visual inspections for disengaged or damaged decompression panels of the bilge barriers located in the forward and aft cargo compartments, reinstallation of disengaged but undamaged panels, and replacement of damaged panels. This AD was prompted by reports of multiple incidents of torn decompression panels found in the bilge area, and the development of new procedures for changing or replacing the bilge barrier assembly in the forward and aft cargo compartments. This AD retains the requirements of AD 2021-08-19 and requires changing or replacing the bilge barrier assembly in the forward and aft cargo compartments, which terminates the repetitive inspections. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:**

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1171; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

*Material Incorporated by Reference:*

- For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website [myboeingfleet.com](https://myboeingfleet.com).

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1171.

**FOR FURTHER INFORMATION CONTACT:** Brandon Lucero, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3569; email: [brandon.lucero@faa.gov](mailto:brandon.lucero@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-08-19, Amendment 39-21513 (86 FR 20440, April 20, 2021) (AD 2021-08-19). AD 2021-08-19 applied to all The Boeing Company Model 787-8, -9, and -10 airplanes. The NPRM published in the *Federal Register* on December 6, 2022 (87 FR 74524). The NPRM was prompted by reports of multiple incidents of torn decompression panels being found in the bilge area, and the development of new procedures for changing or replacing the bilge barrier assembly in the forward cargo compartment. In the NPRM, the FAA proposed to retain the requirements of AD 2021-08-19 and require changing or replacing the bilge barrier assembly in the forward and aft cargo compartments, which would terminate the repetitive inspections. The FAA is issuing this AD to address the possibility of leakage in the bilge area, which could, in the event of a cargo fire, result in insufficient Halon concentrations to adequately control the fire. This condition, if not addressed, could result in the loss of continued safe flight and landing of the airplane.

### **Discussion of Final Airworthiness Directive**

#### **Comments**

The FAA received comments from Air Line Pilots Association, International (ALPA) and United Airlines (UAL), who supported the NPRM without change.

The FAA received additional comments from three commenters, including American Airlines (AAL), Boeing, and JAL Engineering Co., Ltd. (JAL). The following presents the comments received on the NPRM and the FAA's response to each comment.

#### **Request to Change Applicability**

AAL, Boeing, and JAL requested that the applicability be limited to airplanes identified in Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue

001, dated May 10, 2022. The commenters stated that the required actions had already been accomplished in-production via Boeing Change Notice (CN) AA85484 Part A for the airplanes not identified in Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022. JAL added that CN AA85484 Part A was approved as an alternative method of compliance (AMOC) to the repetitive inspections required by paragraph (g) of AD 2021-08-19.

The FAA agrees to the requested change for the reasons provided. Paragraph (c) of this AD has been changed accordingly.

### **Request to Correct Certain Preamble Wording**

AAL and Boeing requested that two sentences in the proposed AD specifying “procedures for changing or replacing the bilge barrier assembly in the forward cargo compartment” be revised to specify the “forward and aft cargo compartments.” Boeing requested the wording be changed in the SUMMARY, while AAL requested the wording be changed in the “Actions Since AD 2021-08-19” paragraph of the proposed AD. Both commenters pointed out that the modification referenced in the paragraph also applies to the aft cargo compartment.

The FAA agrees to change the wording as requested in the SUMMARY, but notes that this final rule does not contain the “Actions Since AD 2021-08-19” paragraph.

### **Request to Supersede Additional AD**

AAL and Boeing requested that the proposed AD replace (supersede) AD 2018-05-06, Amendment 39-19215 (83 FR 9688, March 7, 2018)(AD 2018-05-06) as well as AD 2021-08-19. AAL stated that Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022, refers to both AD 2018-05-06 and AD 2021-08-19. Boeing added that Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022, states that it is an alternative method of compliance (AMOC) to AD 2018-05-06.

The FAA agrees that AD 2018-05-06 should also be superseded by this AD, and notes that AD 2018-05-06 required replacing decompression panels with panels having part numbers that are now obsolete. This AD has been revised to specify that it also supersedes AD 2018-05-06.

### **Request to Allow Certain AMOCs**

AAL requested that the AMOCs approved for AD 2018-05-06 be approved as AMOCs for the proposed AD. AAL stated that it understands that paragraph D., “Approval” of Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022, contains a global AMOC for AD 2018-05-06 and AD 2021-08-19.

The FAA agrees to clarify. The FAA acknowledges that the AMOC in FAA approval letter 785-22-5682 grants approval of Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022, as an AMOC to the requirements of paragraph (i) of AD 2018-05-06. However, that AMOC does not apply to this AD because this AD requires accomplishing the actions in Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022. The only other AMOC for AD 2018-05-06 (FAA approval letter 785-21-4492a) allows installing now obsolete part numbers for the decompression panels, and would therefore not be appropriate to apply to this AD. Also, as previously discussed, this AD has been revised to specify that it now supersedes AD 2018-05-06. The FAA has not changed this AD regarding this issue.

### **Conclusion**

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as

proposed in the NPRM. None of the changes will increase the economic burden on any operator.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022. This service information specifies procedures for changing or replacing the bilge barrier assembly in the forward cargo compartments at stations (STA) 345 and 825 and aft cargo compartment at STA 1304. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

### **Costs of Compliance**

The FAA estimates that this AD affects 135 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Repetitive inspections (retained actions)	3 work-hours X \$85 per hour = \$255 per inspection cycle	\$0	\$255 per inspection cycle	\$34,425 per inspection cycle
Change or replace bilge barrier (new proposed action)	Up to 7 work-hours X \$85 per hour = \$595	Up to \$12,100	Up to \$12,695	Up to \$1,713,825

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these replacements:

#### **On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Replacement (retained requirement)	1 work-hour X \$85 per hour = \$85	\$*	\$85

\*The FAA has received no definitive data on which to base the parts costs estimates for the replacements.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2018-05-06, Amendment 39-19215 (83 FR 9688, March 7, 2018); and AD 2021-08-19, Amendment 39-21513 (86 FR 20440, April 20, 2021); and

b. Adding the following new AD:

**2023-08-02 The Boeing Company:** Amendment 39-22417; Docket No. FAA-2022-1171; Project Identifier AD-2022-00852-T.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2018-05-06, Amendment 39-19215 (83 FR 9688, March 7, 2018) (AD 2018-05-06); and AD 2021-08-19, Amendment 39-21513 (86 FR 20440, April 20, 2021) (AD 2021-08-19).

#### **(c) Applicability**

This AD applies to The Boeing Company Model 787-8, -9, and -10 airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022.



**(d) Subject**

Air Transport Association (ATA) of America Code 50, Cargo and accessory compartments.

**(e) Unsafe Condition**

This AD was prompted by reports of multiple incidents of torn decompression panels being found in the bilge area, and the development of new procedures for changing or replacing the bilge barrier assembly in the forward cargo compartment. The FAA is issuing this AD to address the possibility of leakage in the bilge area, which could, in the event of a cargo fire, result in insufficient Halon concentrations to adequately control the fire. This condition, if not addressed, could result in the loss of continued safe flight and landing of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Repetitive Inspections and Corrective Action with No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2021-08-19 with no changes. At the applicable times specified in paragraph (g)(1) or (2) of this AD: Do a general visual inspection for disengaged or damaged (torn) decompression panels of the bilge barriers located in the forward and aft cargo compartments. If any disengaged but undamaged panel is found: Before further flight, reinstall the panel. If any damaged panel is found: Before further flight, replace the panel with a new or serviceable panel. Reinstallations and replacements must be done in accordance with the operator's maintenance or inspection program, as applicable.

(1) If a general visual inspection for disengaged or damaged (torn) decompression panels of the bilge barriers was done before May 5, 2021 (the effective date of AD 2021-08-19): Do the next inspection within 4 calendar months after the most recent inspection. Repeat the inspection thereafter at intervals not to exceed 4 calendar months.

(2) If a general visual inspection for disengaged or damaged (torn) decompression panels of the bilge barriers was not done before May 5, 2021 (the effective date of AD 2021-08-19): Do the initial inspection within 30 days after May 5, 2021. Repeat the inspection thereafter at intervals not to exceed 4 calendar months.

**(h) Retained MEL Provisions with No Changes**

This paragraph restates the provisions of paragraph (h) of AD 2021-08-19 with no changes. If any decompression panel inspected as required by this AD is disengaged or damaged, the airplane may be operated as specified in the operator's existing FAA-approved minimum equipment list (MEL), provided provisions that address the disengaged or damaged decompression panels are included in the MEL.

**(i) New Required Actions**

Except as specified by paragraph (j) of this AD: At the applicable times specified in the “Compliance,” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022. Accomplishing the actions required by this paragraph terminates the repetitive inspections required by paragraph (g) of this AD.

Note 1 to paragraph (i): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin B787-81205-SB500011-00, Issue 001, dated May 10, 2022, which is referred to in Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022.

**(j) Exceptions to Service Information Specifications**

Where the Compliance Time column of the table in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated

May 10, 2022, uses the phrase “the Issue 001 date of Requirements Bulletin B787-81205-SB500011-00 RB,” this AD requires using “the effective date of this AD.”

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for AD 2021-08-19 are approved as AMOCs for the corresponding provisions of Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022, that are required by paragraph (i) of this AD.

**(l) Related Information**

(1) For more information about this AD, contact Brandon Lucero, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch,

2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3569; email: [brandon.lucero@faa.gov](mailto:brandon.lucero@faa.gov).

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin B787-81205-SB500011-00 RB, Issue 001, dated May 10, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website [myboeingfleet.com](http://myboeingfleet.com).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on April 11, 2023.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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